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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/606,977	06/28/2000	Joseph R. Byrum	16517.144/38-21(15877)B	6609

7590 10/08/2002

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EXAMINER

ALLEN, MARIANNE P

ART UNIT PAPER NUMBER

1631

DATE MAILED: 10/08/2002

7

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/606,977

Applicant(s)

BYRUM, JOSEPH R.

Examiner

Marianne P. Allen

Art Unit

1631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 8-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-19 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9.
- ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other:

## **DETAILED ACTION**

### ***Specification***

The compact disc submission is noted.

The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01. See at least pages 1 and 5 of the specification.

### ***Election/Restrictions***

Applicant's election with traverse of Group I, claims 1-7, with respect to SEQ ID NO: 1 in Paper No. 16 is acknowledged. The traversal is on the ground(s) that there is no undue burden of search, particularly with respect to Groups I and II. This is not found persuasive because the sequences being claimed in Groups I and II are not the same and are patentably distinct based upon their different structures. Search of the entire application would be an undue burden based upon the number of different sequences and inventions being claimed. Burden has previously been established. MPEP 803.04 provides for "up to 10 sequences." One sequence is included in this range and the present burden of searching on the Office requires limiting the search to one sequence. With respect to restriction between Groups III and IV, the transformed plants could be used in the method of Group IV but they have additional uses, for example to produce corn. This is a proper ground for restriction.

The requirement is still deemed proper and is therefore made FINAL.

Claims 8-19 and all sequences other than SEQ ID NO: 1 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 16.

***Claim Rejections - 35 USC § 101***

Claims 1-7 are rejected under 35 U.S.C. 101 because the claimed invention is not supported by either a specific, substantial, and credible asserted utility or a well established utility.

The sequence listing identifies SEQ ID NO: 1 as a 280 nucleotide DNA sequence with at least one wild-card nucleotide position from *Zea mays*. Table A on page 18 indicates that SEQ ID NO: 1 corresponds to clone ZM\_001\_A1\_A01 with SEQ ID forward as ZM\_001\_A1\_A01\_T7C. These designations are not further explained.

There does not appear to be a direct assertion as to how to use SEQ ID NO: 1 nor identifying the particular functional characteristics of the sequence. While the specification generally states that SEQ ID NOS: 1-82359 encode proteins (see page 10), the specification also states that SEQ ID NOS: 1-82359 are promoters (see page 11) and that SEQ ID NOS: 1-82359 are markers (see page 12). These are mutually exclusive classes of nucleotide sequences. For example, promoters do not encode proteins. As such, the specification does not fairly identify what SEQ ID NO: 1 is and as such, the specification cannot be considered to disclose how to use it without confirming any one of these uses or identifying an undisclosed use. Note that the specification does not disclose an open reading frame for SEQ ID NO: 1 nor is one apparent. Note that the specification does not disclose that SEQ ID NO: 1 is a repetitive sequence in *Zea*

Art Unit: 1631

*mays* that has been shown to be a marker of any trait. SEQ ID NO: 1 does not appear to share significant structure with any known marker of *Zea mays*. Note that the specification does not disclose a promoter activity for SEQ ID NO: 1 with respect to any encoded protein. SEQ ID NO: 1 does not appear to share significant structure with any known promoter. Based upon the extremely limited disclosure of the specification, applicant does not appear to have identified any function for SEQ ID NO: 1.

Claims 1-7 are also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific, substantial, and credible asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

Claims 2-4 and 6-7 are ejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a written description rejection.

Claim 2 requires that SEQ ID NO: 1 comprise a microsatellite sequence. No such microsatellite sequence has been identified within SEQ ID NO: 1 and none is apparent.

Claim 3 requires that SEQ ID NO: 1 comprise a single nucleotide polymorphism. No such polymorphism has been identified within SEQ ID NO: 1 and none is apparent.

Claim 6 requires that SEQ ID NO: 1 contain a promoter or partial promoter region. No promoter has been identified within SEQ ID NO: 1 and none is apparent.

Art Unit: 1631

Claim 7 requires a CAAT *cis* and TATA *cis* element and an additional *cis* element.

These elements do not appear to be contained within SEQ ID NO: 1.

Note that claim 5 recites "further comprises" which is not present in these claims. As such, the claims must be interpreted to mean that the stated element is within the claimed SEQ ID NO: 1.

Claims 1-3 and 5-7 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites "specifically hybridizing." This phrase is not defined in the specification and it cannot be determined what level of hybridization is required by the claims and as such, what nucleic acid molecules are embraced by the claims.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1 and 4 are rejected under 35 U.S.C. 102(a) as being anticipated by Genbank

Accession No. AI834598 (02-FEB-2000).

Art Unit: 1631

Although applicant claims benefit to provisional application 60/141,233, SEQ ID NO: 1 is not disclosed in this application. As such, applicant is accorded benefit to the instant filing date of 6/28/00.

Genbank Accession No. AI834598 discloses a nucleic acid from *Zea mays* which has sequence in common with SEQ ID NO: 1. As such, it would specifically hybridize to a complement of a fragment of SEQ ID NO: 1 (see claim 1) and it comprises a fragment of SEQ ID NO: 1 (see claim 4).

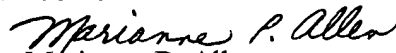
### *Conclusion*

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne P. Allen whose telephone number is 703-308-0666. The examiner can normally be reached on Monday-Friday, 8:30 am - 2:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on 703-308-4028. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-305-3014 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

  
Marianne P. Allen  
Primary Examiner  
Art Unit 1631

mpa  
October 1, 2002